

CLAIMS

1. A method for driving a vertical mixer for vapour, liquid, powdery and/or pasty products with at least one rotatable mixing tool provided in a housing, with at least one inlet for the products to be mixed, with at least one outlet and with at least one drive, characterised in that
 - the mixer (1) is continuously completely filled in the operating state
 - a shear field is built up in the mixing product (11) or in the product flow by means of the mixing tool,
 - the product flow (11) takes place continuously from the inlets (7, 10) of the products (11, 17) to be mixed as far as the outlet (8) of the product to be mixed (11, 17), whereby the primary products (11, 17) are fed continuously into the mixer (1) and the flow of primary products (11, 17) can be regulated in a dosed fashion at the outlet (8).
2. A method according to claim 1, characterised in that the mixing tools can be adjusted at least partly to backward conveyance, i.e., in the opposite direction to the product flow.
3. A method according to claim 1 or 2, characterised in that the mixer serves as dosing device.
4. A method according to claims 1, 2, or 3, characterised in that directly before or after the mixer there is inserted an extruder, forage pellet

press or an expander and/or directly before or after there is inserted a batch mixer.

5. A method according to claim 1, characterised in that the mixing product (11) is pressed by means of the mixing tool in the direction of the inner wall of the housing (6).
6. A device for implementing the method according to one of claims 1 to 5 for the vertical mixing of gaseous, liquid, powdery and/or pasty products, with at least one mixing tool arranged in a housing, with at least one inlet for the products to be mixed, with at least one outlet and with at least one drive, characterised in that the mixing tool(s) is/are arranged on a shaft and a product discharge device is provided at the outlet (8).
7. A device for implementing the method according to one of claims 1 to 5 for the vertical mixing of gaseous, liquid, powdery and/or pasty products with a mixing tool, provided with paddles, arranged in a housing, with at least one inlet for the products to be mixed, with at least one outlet and with at least one drive, characterised in that the paddles (4) are arranged on a hollow shaft (2) and inside the hollow shaft (2) there is an inner shaft (3) for the rotary slide valve (9) provided at the outlet (8).
8. A device according to claim 7, characterised in that the drive (13) is connected to the hollow shaft (2) and to the inner shaft (3) of the rotary slide valve (9) via adjustable gearing or the inner shaft (3) with the rotary slide valve (9) can be driven separately.

9. A device according to claim 7 or 8, characterised in that above the opening (4) of the outlet (8) in the housing floor (18) there is provided an intermediate floor (15) provided with an opening (16), whereby the intermediate floor (15) blocks off the cross-section of the opening (14) of the outlet (8) to divert the mixing product (11).
10. A device according to one of claims 6 to 9, characterised in that the mixer (1) has addition points (10) for the gaseous, liquid, powdery or pasty additives.

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